

Title (en)  
LIFE-TIME MANAGEMENT OF DOWNHOLE TOOLS AND COMPONENTS

Title (de)  
LEBENSDAUERWERWALTUNG VON BOHRLOCHWERKZEUGEN UND KOMPONENTEN

Title (fr)  
GESTION DE DURÉE DE VIE D'OUTILS ET DE COMPOSANTS DE FOND DE TROU

Publication  
**EP 3055501 B1 20230329 (EN)**

Application  
**EP 14852279 A 20141008**

Priority  
• US 201314051353 A 20131010  
• US 2014059697 W 20141008

Abstract (en)  
[origin: US2015106015A1] Systems, methods and devices for evaluating a condition of a downhole component of a drillstring. Methods include estimating a value of a tool parameter of the component at at least one selected position on the drillstring; and using the estimated value to evaluate the condition of the downhole component. The estimating is done using a trained artificial neural network that receives information from at least one sensor that is positionally offset from the selected position. The method may further include creating a record representing information from estimated values of the tool parameter at the at least one selected position over time. The at least one selected position may include a plurality of positions, such as positions at intervals along the component, including substantially continuously along the component.

IPC 8 full level  
**E21B 41/00** (2006.01); **E21B 44/00** (2006.01); **G05B 19/02** (2006.01)

CPC (source: BR EP US)  
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Designated contracting state (EPC)  
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